

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Editorially amend the specification and the drawings.
2. Amend claims 1-17, 19-43, and 45- 51.
3. Respectfully traverse all prior art rejections.

B. DRAWING CHANGES

Along with this amendment, drawing change request is separately submitted to amend Figs. 1, 9, 11, 13, 14 and 15. The amendments merely enhance consistencies with the specification as originally submitted. No new matter is presented. Applicant respectfully requests that the drawing changes be accepted.

C. CLAIM OBJECTIONS

Claims 1, 4, 5, 9, 11, 13, 20, 22, 25, 28, 31, 36, 39, 45 and 51 stand objected to due to informalities. These claims are amended as suggested to address the issues raised. Applicant respectfully requests that the objection to the claims be withdrawn.

D. § 112 SECOND REJECTIONS

Claims 1, 28 and 45 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. These claims are amended to address the issues raised. Applicant respectfully requests that the Section 112, second paragraph, rejection of the claims be withdrawn.

E. § 101 REJECTIONS

Claims 26 and 27 stand rejected under 35 U.S.C. § 101 for being directed to non-statutory subject matter. These claims are amended to address the issues raised. Applicant respectfully requests that the rejection of claims under Section 101 be withdrawn.

F. PATENTABILITY OF THE CLAIMS

Claims 1-51 are rejected based on prior art as follows:

- Claims 1-3, 7-15, 23, 24, 28, 30, 34-41, 45 and 49-50 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Publication 2003/0003919 to Beming et al. (hereinafter “Beming”) in view of U.S. Patent 5,539,922 to Wang (hereinafter “Wang”);
- Claims 4, 6, 20, 21, 22, 31, 33, 46, 47 and 48 stand rejected under 35 USC §103(a) as being unpatentable over Beming in view Wang and further in view of U.S. Publication 2004/0203640 to Molander et al. (hereinafter “Molander”);

- Claims 5, 16-18, 32 and 42-44 stand rejected under 35 USC §103(a) as being unpatentable over Beming in view of Wang and further in view of U.S. Publication 2001/0053145 to Willars et al. (hereinafter “Willars”);
- Claim 19 stands rejected under 35 USC §103(a) as being unpatentable over Beming in view of Wang and further in view of U.S. Publication 2002/0183053 to Gopalakrishna et al. (hereinafter “Gopalakrishna”); and
- Claims 25 and 51 stand rejected under 35 USC §103(a) as being unpatentable over Beming in view of Wang and further in view of U.S. Publication 2004/0029615 to Gerry et al. (hereinafter “Gerry”).

All prior art rejections are respectfully traversed for at least the following reasons. Independent claim 1 recites, in part “including in a first signalling message one or more transport layer addresses and one or more transport bearer reference parameters in order to direct one or more data flows between the RNC and a mobile station of the DHO connection” and “wherein the DHO functionality performed by the first DHO tree node comprises splitting of downlink data flows and combining of uplink data flows.” Independent claims 28 and 45 recite similar features.

Contrary to Examiner’s allegation, neither Beming nor Wang teaches or suggests the above recited feature. In claim 1 for example, the first DHO tree

node, such as a Node B, is a part of or planned to be a part of a DHO connection. That is, the first DHO tree node is tasked to perform splitting of downlink data flows from an RNC to a mobile station. The first DHO tree node is also tasked to perform combining of uplink data flows from the same mobile station to the same RNC. The first signaling message includes one or more transport layer addresses and one or more transport bearer reference parameters so that the data flows between the RNC and the mobile station can be directed through the first DHO tree node.

Beming does not teach or suggest this feature. Beming is directed toward performing a relocation of a serving radio network controller (SRNC) role in a UMTS network, when prior to the relocation the SRNC has been using direct transport bearers to a base station (e.g., Node-B) controlled by a drift radio network radio controller (DRNC). This is illustrated in Figs. 2A and 2B. Fig. 2A illustrates the situation before the SRNC role is relocated and Fig. 2B illustrates the situation after the SRNC is relocated. In Fig. 2A, for the user equipment (UE) 30, the role of the serving RNC is performed by the RNC 26₁. In this particular scenario, a direct transport bearer 100 is provided to connect the Node-B 28₂₋₁ with the RNC 26₁. However, the Node-B 28₂₋₁ is a node actually controlled by the RNC 26₂. *See paragraph 0070*. Thus, it is desirable to move the role of the serving from RNC to RNC26₁ to RNC 26₂. When the relocation is accomplished, the situation is depicted in Fig. 2B in which RNC 26₂ now serves the role as the serving RNC. Note that a new transport bearer

is established between RNC 26₂ and the Node B 28₂₋₁. *See paragraphs 0071-0072.*

Fig. 4 illustrates the steps taken to relocate the roll or the serving RNC from the source RNC 26₁ to the target RNC 26₂. The steps involve generally establishing a brand new transport bearer between the target RNC (i.e. RNC 26₂) and the Node B, and switching from the old transport bearer (i.e. bearer 100) between the source RNC (i.e. RNC 26₁) and the Node B to the new transport bearer between the target RNC and the Node B.

The following are noted. In Beming, there is no disclosure that the Node B actually performs the DHO functionalities as recited. Indeed, there is no disclosure that the Node B themselves can perform diversity handover. In Fig. 3, it is noted that the RNCs include a diversity handover unit 126, which implies that the RNCs can perform macrodiversity functions. This is no more than what was already known. *See e.g., specification as originally submitted, page 3, lines 4-13.*

Moreover, in Beming, when the roll of the serving RNC is relocated the nature of the data flows completely changes. Prior to relocation, the data flows were between the source RNC and the mobile station. After the relocation, the data flows are now between the target RNC and the mobile station. The source RNC is no longer in the picture. In other words, there is no signalling message in order to direct one or more data flows between the RNC and the mobile station of the DHO connection as recited.

Further as illustrated in Fig. 4, the only messages exchanged between the source RNC and the target RNC are relocation requests, acknowledgement of the relocation requests, relocation trigger and relocation complete messages. There is no disclosure that transport layer addresses and bearer parameters are exchanged in these messages. Indeed, there is no need since the target RNC establishes the new transport bearer between itself and the Node B.

In the Office Action, the Examiner relies upon paragraphs 0083-0086 to allegedly disclose the feature of including transport layer addresses and bearer reference parameters in the signalling message. These paragraphs correspond to Figs. 5A and 5B and describe another implementation to relocate the role of the serving RNC from the source to the target RNC. The end result is the same in that the new transport bearer is established between the target RNC and the Node B and the old transport bearer between the source RNC and the Node B are released. *See paragraph 0086.* Again, no DHO function is being performed and no signalling messages are exchanged to direct one or more data flows between the RNC and the mobile station, and no transport layer addresses and bearer reference parameters are exchanged.

Examiner properly does not reply upon Wang to correct the above-noted deficiencies of Beming. Consequently, independent claims 1, 28 and 45 are distinguishable over the combination of Beming and Wang. Claims 2, 3, 7-15, 23, 24, 30, 34-41, 49 and 50 are also distinguishable over the same references

by virtue of their dependencies from independent claims 1, 28 and 45 as well as on their own merits.

None of Molander, Willars, Gopalakrishna and Gerry can correct the above-noted deficiencies of Beming and Wang. Accordingly, independent claims are further distinguishable over any combination of Beming, Wang, Molander, Willars, Gopalakrishna and Gerry. Then by virtue of their dependencies from independent claims as well as on their own merits, claims 4, 6, 20-22, 31, 33, 46-48 are distinguishable over the combination of Beming, Wang and Molander; claims 5, 16-18, 32 and 42-44 are distinguishable over the combination of Beming, Wang and Willars; claim 19 is distinguishable over the combination of Beming, Wang and Gopalakrishna; and claims 25 and 51 are distinguishable over the combination of Beming, Wang and Gerry.

For at least the reasons discussed above, Applicant respectfully requests that the rejections of claims 1-51 be withdrawn.

G. MISCELLANEOUS

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a two (2) month extension of time for filing a reply in connection with the present application, and the required fee is attached hereto.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



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